Chapter 1. State Summary

This volume contains a statewide summary of water supply and water use information for years 1998, 2000 and 2001, followed by twelve individual regional reports. Ten reports summarize California's hydrologic regions as shown in Figure 1. Two additional reports are included for the Mountain Counties Region and the Sacramento – San Joaquin Delta Region, to describe areas of special interest that overlay portions of two or more hydrologic regions.

Hydrologic Regions

California is a state of diverse climates and landforms. To better understand these diversities and plan for future needs, the Department subdivides California into ten hydrologic regions, corresponding to the state's major drainage basins (see Map A, below). These hydrologic regions provide a logical method for tracking and accounting for natural water runoff and how these water supplies are utilized.

For planning and data collection purposes, DWR subdivides the ten hydrologic regions into 56 planning areas (PA) plus a more detailed breakdown into 278 detailed analysis units (DAU). Most of DWR's data collection and analyses begin at the DAU level. The CWP Update aggregates results into hydrologic regions for presentation.

Map A

California's Ten Hydrologic Regions

North Coast. Klamath River and Lost River Basins, and all basins draining into the Pacific Ocean from the Oregon stateline southerly through the Russian River Basin.

San Francisco Bay. Basins draining into San Francisco, San Pablo, and Suisun Bays, and into Sacramento River downstream from Collinsville; western Contra Costa County; and basins directly tributary to the Pacific Ocean below the Russian River watershed to the southern boundary of the Pescadero Creek Basin.

Central Coast. Basins draining into the Pacific Ocean below the Pescadero Creek watershed to the southeastern boundary of Rincon Creek Basin in western Ventura County.

South Coast. Basins draining into the Pacific Ocean from the southeastern boundary of Rincon Creek Basin to the Mexican boundary.

Sacramento River. Basins draining into the Sacramento River system in the Central Valley (including the Pit River drainage), from the Oregon border south through the American River drainage basin.

San Joaquin River. Basins draining into the San Joaquin River system, from the Cosumnes River basin on the north through the southern boundary of the San Joaquin River watershed.

Tulare Lake. The closed drainage basin at the south end of the San Joaquin Valley, south of the San Joaquin River watershed, encompassing basins draining to Kern Lakebed, Tulare Lakebed, and Buena Vista Lakebed.

North Lahontan. Basins east of the Sierra Nevada crest, and west of the Nevada stateline, from the Oregon border south to the southern boundary of the Walker River watershed.

South Lahontan. The closed drainage basins east of the Sierra Nevada crest, south of the Walker River watershed, northeast of the Transverse Ranges, north of the Colorado River Region. The main basins are the Owens and the Mojave River Basins.

Colorado River. Basins south and east of the South Coast and South Lahontan regions; areas that drain into the Colorado River, the Salton Sea, and other closed basins north of the Mexican border.

Overlay Areas

Areas with common water issues or interests often cross the boundaries from one hydrologic region to another (see Chapter 4 of Volume 1 on regional planning). This is the first Water Plan Update in the Bulletin 160 series to begin to describe regions in a context beyond hydrologic regions. The two regional overlays that are described in this report are the Mountain Counties Region and the Sacramento – San Joaquin Delta Region, as shown in Map B, Mountain Counties and Legal Delta Overlays. There are many other regional overlays that could be developed, based on jurisdictional boundaries such as county lines or regional water agency boundaries. Two other examples are the California Bay Delta Authority's southern California regional area of influence, and the nine county regional boundary for the Association of Bay Area Governments.

Map B

Two Overlay Areas

Mountain Counties. The Mountain Counties include the foothills and mountains of the western slope of the Sierra Nevada and a portion of the Cascade Range. The area includes the eastern portions of the Sacramento River and San Joaquin River hydrologic regions. This area shares common water and other resource issues and is the origin for much of the state's developed surface water supply.

Delta. The Legal Delta includes about 740,000 acres of tidally influenced land near the confluence of the Sacramento and San Joaquin Rivers. While the Delta occupies portions of the Sacramento, San Joaquin and a small part of the San Francisco hydrologic regions, the Delta is described as an overlay area because of its common characteristics, environmental significance, and its important role in the State's water systems.

Hydrology For Current Conditions

Previous bulletins included current year water use and supply data based upon a "normalized" year. Bulletin 160-98 developed average water year conditions based on actual water uses and supplies from year 1995 (which was actually a wet hydrologic year), which was then "normalized" - adjusted based on historic trends so that the 1995 level of water use would be representative of what would be expected to occur in a statistically average water supply year. In the same way, a drought scenario was calculated to represent anticipated 1995 level water uses under drought conditions.

As a result of the greater involvement of the Advisory Committee in the California Water Plan Update 2003, the previous process was changed. The Advisory Committee and the public requested that data be prepared and presented from actual years, without any statistical adjustments. Three recent years were selected to show the range of actual water supplies and uses, based on a range of hydrologic conditions:

- 1998, which was a wet water supply year statewide
- 2000, an overall average or normal water year
- 2001, a below average or dry year.

As a result of this new methodology the actual data presented in this report is not directly comparable to the normalized data presented in previous Bulletin 160 updates. The three recent years reflect the supplies and uses at a particular point in time and under specific conditions. Similarly the data for year 2001 does not constitute a drought scenario, but only presents conditions for one single below normal or dry year.

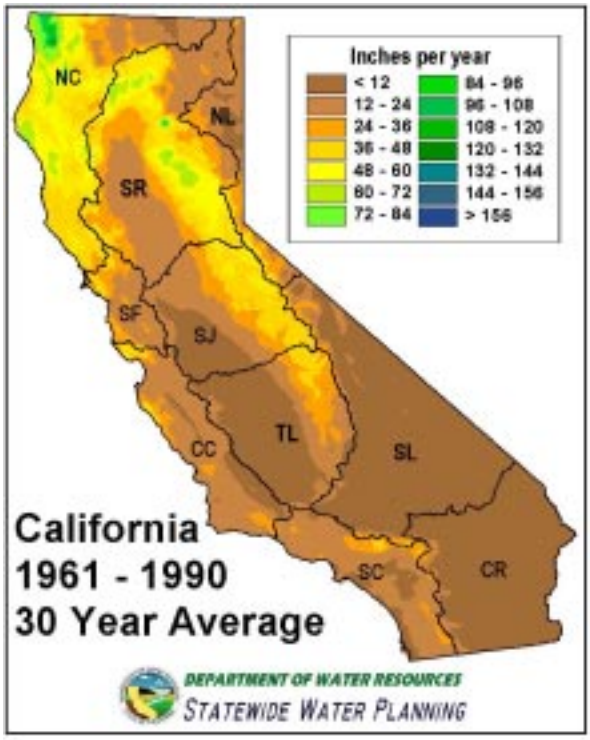
In addition, these generally wet, average, and dry conditions for the entire state are not universally the same for all regions of the state. Map C shows the long-term (based on years 1961 – 1990) mean annual precipitation for the state. For comparison, Maps D, E and F show the range of actual precipitation across the different regions of the state for years 1998, 2000, and 2001 respectively.

Water Portfolios

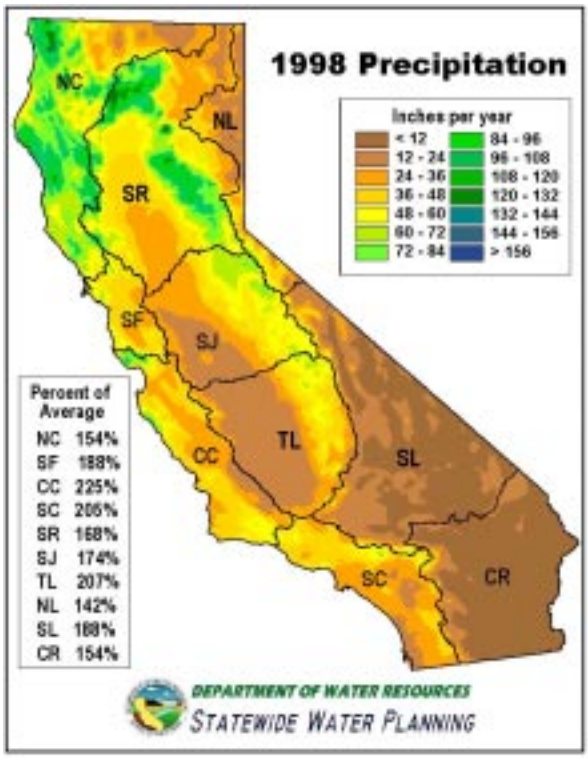
Traditionally, the updates to the *California Water Plan* have quantified current conditions and future forecasts through developed "water balances". For current conditions the previous balances compared information about the developed water supplies and uses, including the statistical adjustment of actual data to average or "normalized" conditions. The new water portfolio rationale proposed for this *California Water Plan Update* is intended to: (1) consider the "entire water pie" (all water supply sources), (2) provide better appreciation of the disposition of our source waters statewide by including additional categories of water supply and use, (3) present water balances using accepted accounting principles, (4) provide insight where there may be underutilized "assets" (supply) and unmet "liabilities" (uses), (5) provide insight in natural, physical (infrastructure), and institutional constraints, and water management decisions, by annotating water balances with narrative, and (6) include key supplemental information, for instance, on water quality, water rights, and water contracts. This concept is based on a traditional financial accounting portfolio, and is intended to identify all of the states water assets whether or not they are currently developed and used.

This volume presents a water portfolio for the entire state and for each of the state's 10 hydrologic regions and Mountain Counties, intended to identify all of the water supply sources and uses for each of the three specified years. For each region, the water portfolio information for each year is presented in two formats, a portfolio flow diagram (see Figures 1-2, 1-3 and 1-4), and as tabular information (see tables 1-2a, 1-2b and 1-2c). The portfolios are based on the concept of the hydrologic cycle, and identify all possible categories of statewide water supplies and uses. On a statewide and regional basis, the portfolio diagrams also show the routing of water from initial source of supply to final disposition. The basic data and assumptions that are presented in these portfolio diagrams have been assembled for smaller local and regional areas, and the accumulated to compile total portfolio amounts for the hydrologic regions and statewide. All of the information presented in the portfolio diagrams is also cross-referenced by number codes to tabular versions of this information. For consistency in each of the subsequent regional reports within Volume 3, the same portfolio format and data tables are also utilized.

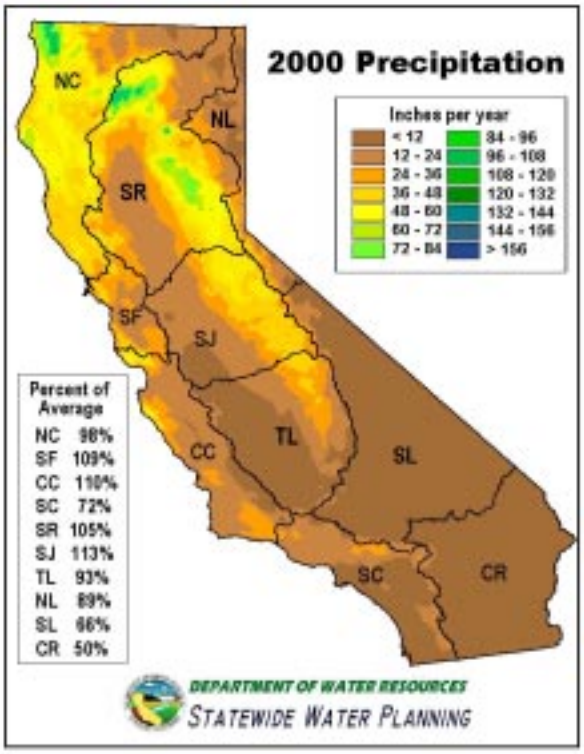
Map C


Inches per year
< 12
12 - 24
24 - 36
36 - 48
48 - 60
60 - 72
72 - 84
84 - 96
96 - 108
108 - 120
120 - 132
132 - 144
144 - 156
> 156
NC
NL
SR
SF
SJ
TL
CC
SL
SC
CR
California
1961 - 1990
30 Year Average
DEPARTMENT OF WATER RESOURCES
STATEWIDE WATER PLANNING

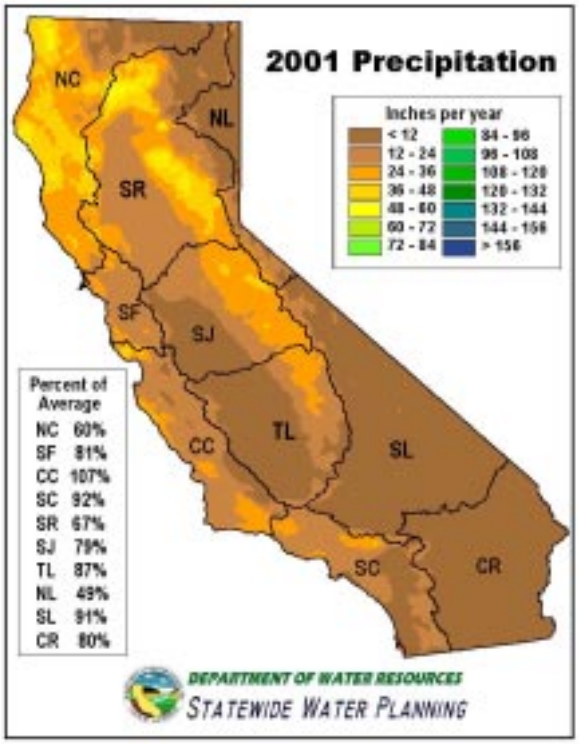
Map D


1998 Precipitation
Inches per year
< 12
12 - 24
24 - 36
36 - 48
48 - 60
60 - 72
72 - 84
84 - 96
96 - 108
108 - 120
120 - 132
132 - 144
144 - 156
> 156
Percent of Average
NC 154%
SF 188%
CC 225%
SC 206%
SR 168%
SJ 174%
TL 207%
NL 142%
SL 188%
CR 154%
NC
NL
SR
SF
SJ
TL
CC
SL
SC
CR
DEPARTMENT OF WATER RESOURCES
STATEWIDE WATER PLANNING

Map E


2000 Precipitation
Inches per year
< 12
12 - 24
24 - 36
36 - 48
48 - 60
60 - 72
72 - 84
84 - 96
96 - 108
108 - 120
120 - 132
132 - 144
144 - 156
> 156
NC
NL
SR
SF
SJ
CC
TL
SL
SC
CR
Percent of Average
NC 98%
SF 109%
CC 110%
SC 72%
SR 105%
SJ 113%
TL 93%
NL 89%
SL 66%
CR 50%
DEPARTMENT OF WATER RESOURCES
STATEWIDE WATER PLANNING

Map F


2001 Precipitation
Inches per year
< 12
12 - 24
24 - 36
36 - 48
48 - 60
60 - 72
72 - 84
84 - 96
96 - 108
108 - 120
120 - 132
132 - 144
144 - 156
> 156
NC
NL
SR
SF
SJ
CC
TL
SL
SC
CR
Percent of Average
NC 60%
SF 81%
CC 107%
SC 92%
SR 67%
SJ 79%
TL 87%
NL 49%
SL 91%
CR 80%
DEPARTMENT OF WATER RESOURCES
STATEWIDE WATER PLANNING

The key principle of these new water portfolio tables and flow diagrams is that they attempt to provide an accounting of all water that enters and leaves the state, and water that is exchanged between regions, which is an important tool for all water planning activities. One shortcoming of this expanded process is that there are many regions of the state where some of the water portfolio data categories have never been measured or quantified. Thus, the resulting water portfolios also show many categories where inadequate data are available. However, the ability to identify where additional data collection activities are needed is an important byproduct of this process. Another disadvantage with using real data from three specific years is that those years provide no information about how supplies and demands would change during a sequence of dry years. Future development of a series of ten or more actual years of data would be very helpful for developing representative conditions for both average and sustained drought conditions.

Water Portfolio Components

The water portfolios for the California Water Plan Update consists of the following items:

Flow Diagrams
The flow diagrams presented in Update 2003 are an expanded version of the diagram that originally appeared in Bulletin 160-83 on page 88. The flow diagram begins with the sources of water, such as precipitation and inflows into the state, and attempts to track all the water as it flows through many different uses until it reaches its ultimate destination in the ocean, inland sea or the atmosphere. Diagrams have been prepared for each of the 10 hydrologic regions, Mountain Counties, and statewide totals.

Flow Diagram Table Format

The Flow Diagram Table provides additional detail, by presenting each of the components of the flow diagram by number and category (inputs or withdrawals).

Water Balances
As in Bulletin 160-98, water balances are computed for applied water use, net water use and depletion for each region and planning area within a region, Mountain Counties and the state. The balances include measured water supplies that are applied to the following uses within a region:

- Agricultural
- Urban (including commercial and industrial)
- Wildlife refuge
- Instream requirement
- Wild and scenic river requirement
- Required delta outflow

It includes reuse of water within a region, but not water exported from a region.

Water Quality
The water quality basin plans prepared by the SWRCB and RWQCB will eventually become part of the California Water Plan. The basin plans along with other water quality reports will be integrated regionally into the water portfolio.

Applied Water Methodology

As previously developed in Bulletin 160-98, this CWP Update computes water supplies and uses on the basis of applied water data. Applied water refers to the total amount of water from any source that is diverted to meet the demands of water users. Within Volume 3, all of the tables that show statewide totals present information on an “applied water” basis. However, for each of the individual regional reports, the

information has been expanded to include applied water uses,net water uses, and depletion. Net water supply and net water use values are smaller than applied water use because they do not count that portion of any water demand that is met by reapplication of either surface or groundwater supplies. Water supply information that is presented using applied water methodology is easier for local water agencies to evaluate, because applied water use information is similar in concept to agency water system delivery data.

Key Water Supply and Water Use Definitions

The water portfolio tables presented throughout Volume 3 summarize California's water supplies and urban, agricultural and environmental water uses for years 1998, 2000 and 2001. Certain key concepts, defined below, provide an essential foundation for understanding and evaluating the water supplies and water uses presented in these tables.

Applied Water : The amount of water from any source needed to meet the demand of the user. Examples would include the quantity of water that is delivered at any of the following locations:

- The intake to a city water system or a factory.
- The farm headgate or other point of measurement for agricultural use.
- The diversion point to a managed wetland, either directly or from other drainage flows.

For instream use, applied water is quantified as the amount of stream flow dedicated to instream purposes (or reserved under federal or State wild and scenic rivers legislation). It is also identified as the amount of stream flow required for maintaining flow and water quality in the Sacramento - San Joaquin Delta per the SWRCB's Decision 1630 or previous standards.

Net Water: The amount of water needed in a water service area to meet all demands. It is the sum of several components including (1) evapotranspiration of applied water within an area, (2) the irrecoverable losses from the distribution system, and (3) the agricultural return flow or treated urban wastewater leaving the area.

Irrecoverable Losses: The amount of water lost to a salt sink, lost by evapotranspiration, or lost by evaporation from a conveyance facility or drainage canal.

Evapotranspiration: ET is the amount of water transpired (given off), retained in plant tissues, and evaporated from plant tissues and the surrounding soil surfaces.

Evapotranspiration of Applied Water: ETAW is the portion of total ET which was provided from the applied irrigation water.

Depletion: The amount of water consumed within a service area that is no longer available as a source of supply. For agricultural and environmental wetlands water use, depletion is the sum of irrecoverable losses and the ETAW due to crops, wetlands vegetation, and flooded water surfaces. For urban water use, depletion is the ETAW due to landscaping, wastewater outflow to a salt sink, and incidental ET losses. For environmental instream use, depletion is the amount of dedicated flow that proceeds to a salt sink.

Statewide Water Balance Summary

In average water years like 2000, California receives close to 200 million acre-feet of water from precipitation and imports from Colorado, Oregon and Mexico. Of this total supply, about 50-60 percent either is used by native vegetation, evaporates to the atmosphere, provides some of the water for agricultural crops and managed wetlands (effective precipitation); or flows to Oregon, Nevada, the Pacific Ocean, and salt sinks like saline groundwater aquifers and the Salton Sea. The remaining 40-50 percent,

or dedicated supply, is distributed among urban and agricultural uses, water for protecting and restoring the environment, or storage in surface and groundwater reservoirs for later use. In any year, some of the dedicated supply includes water that is used multiple times (reuse) and water stored from previous years. Ultimately, about a third of the dedicated supply flows out to the Pacific Ocean, in part to meet environmental requirements, or to other salt sinks.

The information presented in the table below summarizes the total supply and the distribution of the dedicated supply to various uses within California for the three years evaluated. As indicated for wet (1998) and dry (2000) years, the total supply and the distribution of the dedicated supply to various uses changes significantly from the average year 2000 values.

California Water Balance Summary For Water Years 1998, 2000 and 2001

	1998 (Wet Year)	**2000 (Avg Year)**	**2001 (Dry Year)**
Total Supply (Precipitation & Imports)	335.8 maf	194.2 maf	145.5 maf
Dedicated Supply (Includes Reuse)	97.4 maf	82.5 maf	64.9 maf
Distribution of Dedicated Supply to Various Applied Water Uses			
Urban Uses	7.7 maf (8%)	8.8 maf (11%)	8.6 maf (13%)
Agricultural Uses	27.6 maf (28%)	34.3 maf (42%)	33.9 maf (52%)
Environmental Water *	62.1 maf (64%)	39.4 maf (47%)	22.4 maf (35%)

* Environmental water includes instream flows, wild & scenic flows, required Delta Outflow and managed wetlands water use.

Table 1-1 provides more detailed information about total statewide water supply sources and provides estimates for the primary uses of the State's supplies. As indicated, a large component of the statewide water supply is used by natural processes (evaporation, evapotranspiration from native vegetation and forests, percolation to groundwater, etc) and is often not part of the developed water supplies. In the following chapters of Volume 3, each of the regional reports presents the same tabular information at the regional level of analysis. For some of the items presented in Table 1-1, the numerical values were developed by estimation techniques, because measured data is not available on a statewide basis.

A statewide summary of Dedicated Water Supplies and Uses is presented in Table 1-3, which provides a more detailed breakdown of the components of developed supplies that are used for agricultural, urban and environmental purposes. For each of the three water years shown, information is presented as both applied and net water usage, as well as the calculated total water depletion. As previously mentioned, much of the environmental water usage in this table is actually dedicated to instream flow requirements and wild & scenic rivers, which in some cases can later be reused for other downstream purposes.

Statewide Water Portfolio Results For Years 1998 (Wet), 2000 (Average) and 2001 (Dry)

Statewide summaries of water supplies and applied water uses are presented graphically in the portfolio flow diagrams (Figures 1-2, 1-3 and 1-4), and numerically in the water portfolio data tables Tables 1-2a, 1-2b and 1-2c). The primary purpose of these diagrams and tables is to present information for

comparison about how water supplies and use can vary between the wet, average, and dry hydrologic conditions that are represented by these three specific years. It is important to remember that actual water supply and water use information from each of these three specific years is only a snapshot of a single year's hydrology and water uses. It would not be appropriate to assume that other past or future years with similar hydrology (wet, average, or dry) would generate the exact same level of water uses as summarized for these three years.

The statewide information has been assembled from the ten individual hydrologic regions that are presented in the following chapters. The organizational structure of the portfolio diagrams and the numerical identification for the data categories is consistently maintained between the ten regional reports and these statewide summaries. However, note that when water supply and water use information from the regional reports is accumulated for the statewide totals, some categories (such as inter-regional water transfers between one hydrologic region and an adjoining region) are not relevant, and are thus not shown in the statewide tables. Within the statewide diagrams and tables presented in this Chapter there are several categories that indicate "incomplete" or "unknown" data, for components of water supply and water use where information is either not available, or only partially available from some regions of the state. Within the data tables, the code "N/A" is used to identify categories where data is not available, and the symbol "-" has been used to identify water data categories that are "not applicable" on a statewide basis.

On a statewide basis the Water Portfolio Flow Diagrams in Figures 1-2, 1-3 and 1-4 show detailed flow diagrams for water supplies and uses for years 1998, 2000, and 2001 respectively. In both the statewide and regional portfolio diagrams, the information is organized to show sources of water supply on the left side, water uses in the middle, and the final disposition of the ways that water leaves the state is depicted on the right side. To assist the reader in following the movement of water from initial sources to final disposition, water supplies (called "deposits") are consistently shown in blue boxes, water uses are summarized in green boxes, and water withdrawals (how water leaves the state) are shown in yellow boxes. The numerical identification numbers in the small circles all correspond the tabular presentation of the data in Tables 1-2a, 1-2b and 1-2c.

The Flow Diagram Data Tables show the information presented in the flow diagrams in tabular form, with sixty major categories of water supply and use identified. These statewide tables are different from the regional data tables presented in the following chapters, in that there is only one column shown for each hydrologic region in which water supply and "applied" water use information has been aggregated. The regional tables in the following chapters also present water use information on a "net water" basis and tabulate water depletions where appropriate. In addition, there are several water data categories that are accounted for at the regional level, but which lose there relevance at the statewide level (such as inter-regional water transfers). In these cases the "- not applicable" symbol is shown in many boxes on the statewide table, but actual data will be presented within the regional tables in the following chapters.

Statewide Water Data Needs

When the concept of developing water portfolios with information about all of California's supplies and uses was first discussed, it was noted that there would be insufficient information available for many of the data categories and several of the less developed regions of the State. However, identifying the categories where inadequate information is available is a necessary first step towards improving water data collection needs.

The types of needed technical information can be grouped into three categories which are described as:

- Data – factual (or observed) information, such as measurements or statistics (e.g., gauged flows in a river, population as measured by census, and salinity of a water sample). Sets of data can be raw (as taken from measurement device) or elaborated (modified slightly as part of quality assessment and quality control measures, or supplemented to address missing measurements).
- Relationships (or system interactions) – descriptions of how the social, physical, and environmental systems affect or are affected by the status of water supply and water use in California (e.g., how releases from a reservoir affect water temperature at a point in a river downstream, the crop mix in a region and the expected market conditions for each crop, and snow pack conditions in February and the delivery of SWP water).
- Estimates – inferred, derived and/or forecasted quantities based on available data, defined relationships, and other assumptions (e.g., population forecasts for the Los Angeles area in 2030, groundwater flows between sub basins, future available water deliveries, and the cost to implement water conservation best management practices).

There are a number of categories where data are simply not available or very resource intensive to compile. See the reference guide for a complete description of data gaps. Significant data gaps include:

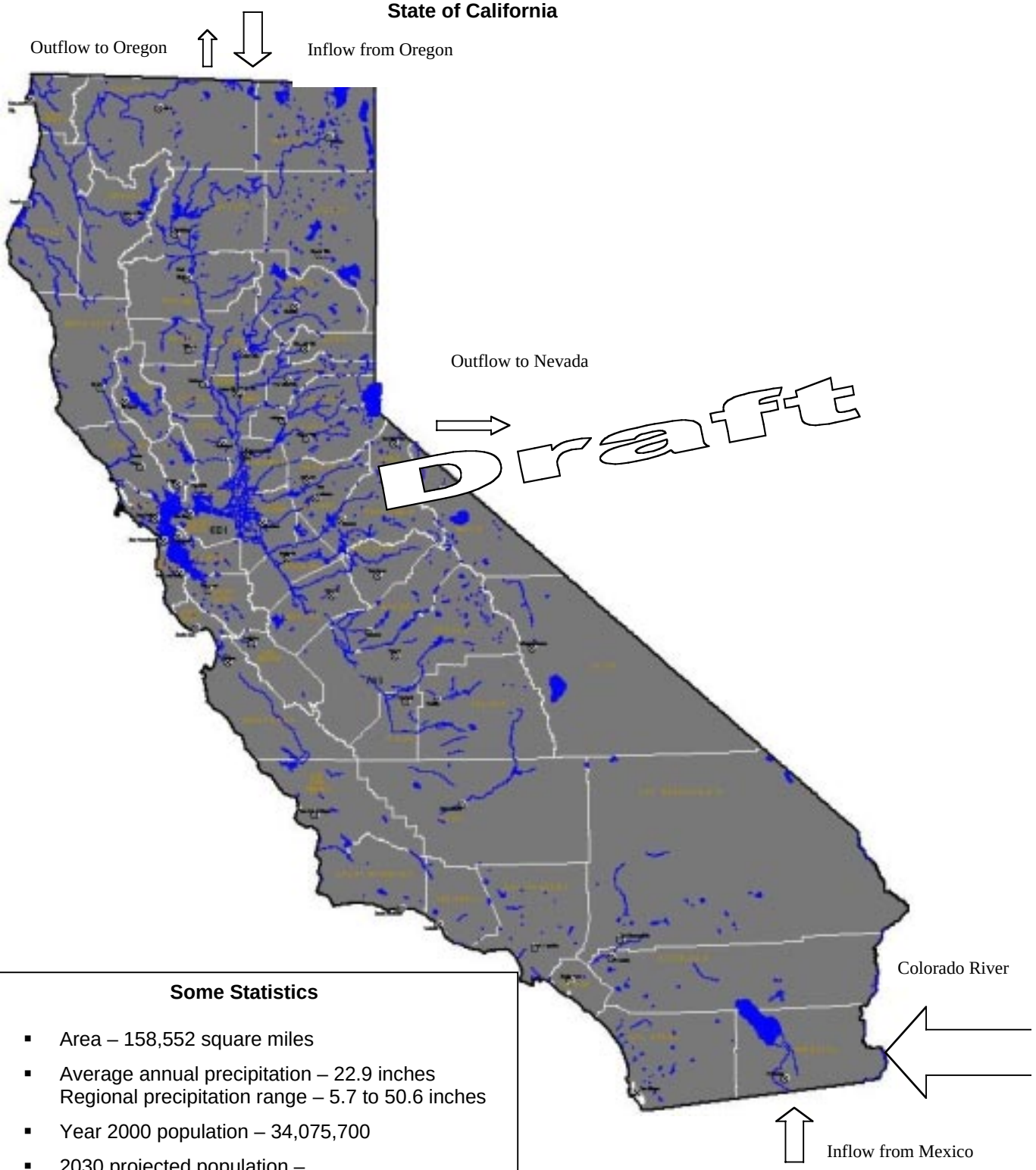
- statewide land use data (e.g., native vegetation, urban footprints, non-irrigated agriculture, and irrigated agriculture)
- groundwater (total natural recharge, subsurface inflow and outflow, recharge and extractions, levels, and water quality)
- surface water (natural and incidental runoff, local diversions, return flows, total stream flows, conveyance losses, and runoff to salt sinks)
- losses (evaporation and evapotranspiration from native vegetation, wetlands, urban runoff and unirrigated agricultural production)

There are a number of data items necessary to calculate or estimate these categories. Some of the major data items needed to complete the flow diagram and water balances consist of more detailed and accessible land and water use information including information to separate out applied water use versus consumptive water use. The major data items are:

- water source of supply information,
- outflow data,
- groundwater level data,
- groundwater recharge rates,
- natural riparian water requirements,
- evapotranspiration rates for all types of vegetation,
- detailed return flow information and
- more detailed physical information about all watersheds, water systems and groundwater basins in the state.

A significant increase in the amount of data collected and evaluated will be necessary, before California can fully understand the State's water supplies and plan for future water needs.

Figure1-1
State of California



Some Statistics

- Area – 158,552 square miles
- Average annual precipitation – 22.9 inches
  Regional precipitation range – 5.7 to 50.6 inches
- Year 2000 population – 34,075,700
- 2030 projected population –
- Total reservoir storage capacity – 40,741 TAF
- 2000 irrigated agriculture - 8,975,110 acres

Table 1-1
California Water Balance Summary – TAF

Water Entering the Region – Water Leaving the Region = Storage Changes in Region

(See flow diagrams and tables for details)	1998 (wet)	2000 (average)	2001 (dry)
Water Entering the State			
Precipitation	329.6	187.7	139.2
Inflow from Oregon/Mexico	1.2	1.2	1.2
Inflow from Colorado River	5.0	5.3	5.1
Imports from Other Regions	N/A	N/A	N/A
Total	**335.8**	**194.2**	**145.5**
Water Leaving the State			
Consumptive Use of Applied Water * (Ag, M&I, Wetlands)	19.9	25.2	25.2
Outflow to Oregon/Nevada/Mexico	1.5	0.9	0.7
Exports to Other Regions	N/A	N/A	N/A
Statutory Required Outflow to Salt Sink	48.6	30.6	16.2
Additional Outflow to Salt Sink	40.2	18.2	9.7
Evaporation, Evapotranspiration of Native Vegetation, Groundwater Subsurface Outflows, Natural and Incidental Runoff, Ag Effective Precipitation & Other Outflows	220.3	125.2	108.1
Total	**330.5**	**200.1**	**159.9**
Storage Changes in State [+] Water added to storage [–] Water removed from storage			
Change in Surface Reservoir Storage	7.1	-1.4	-4.6
Change in Groundwater Storage **	-1.8	-4.5	-9.8
Total	**5.3**	**-5.9**	**-14.4**

Applied Water * (compare with Consumptive Use) * Definition - Consumptive use is the amount of applied water used and no longer available as a source of supply. Applied water is greater than consumptive use because it includes consumptive use, reuse, and outflows.	34.1	41.8	41.4

**Footnote for change in Groundwater Storage

Change in Groundwater Storage is based upon best available information. Basins in the north part of the State (North Coast, San Francisco, Sacramento River and North Lahontan Regions and parts of Central Coast and San Joaquin River Regions) have been modeled – spring 1997 to spring 1998 for the 1998 water year and spring 1999 to spring 2000 for the 2000 water year. All other regions and year 2001 were calculated using the following equation:

GW change in storage =
intentional recharge + deep percolation of applied water + conveyance deep percolation – withdrawals

This equation does not include the unknown factors such as natural recharge and subsurface inflow and outflow.

Table 1-2a
California Statewide Water Portfolios for Water Year 1998

The flow diagram is regional data only.

		NC	SF	CC	SC	SR	SJ	TL	NL	SL	CR	CA	MC
Inputs:	**In Thousand Acre-feet**	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
1	Colorado River Deliveries	-	-	-	1,081.3	-	-	-	-	-	3,904.9	4,986.2	-
2	Total Desalination	-	-	-	-	-	-	-	-	-	-	0.0	-
3	Water from Refineries	-	-	-	-	-	-	-	-	-	-	0.0	-
4a	Inflow From Oregon	1,322.5	-	-	-	-	-	-	-	-	-	1,322.5	-
b	Inflow From Mexico	-	-	-	-	-	-	-	-	-	182.4	182.4	-
5	Precipitation	79,216.3	11,438.0	25,201.6	20,873.0	89,500.1	35,534.7	27,305.9	10,654.6	20,409.3	9,454.8	329,588.3	55,205.7
6a	Runoff - Natural	53,812.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	53,812.0	N/A
b	Runoff - Incidental	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
7	Total Groundwater Natural Recharge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
8	Groundwater Subsurface Inflow	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
9	Local Deliveries	375.4	273.4	73.1	292.1	14,297.8	3,264.7	3,623.3	501.4	56.6	6.6	22,764.4	1,154.0
10	Local Imports	2.0	500.3	-	401.9	9.7	-	-	0.3	-	-	914.2	9.7
11a	Central Valley Project :: Base Deliveries	-	-	0.5	-	1,588.8	148.0	-	-	-	-	1,737.3	5.5
b	Central Valley Project :: Project Deliveries	-	120.6	17.6	-	418.6	1,248.7	1,820.1	-	-	-	3,625.6	20.2
12	Other Federal Deliveries	334.5	38.6	54.1	4.2	198.0	63.4	-	-	-	-	692.8	1.6
13	State Water Project Deliveries	-	148.5	24.6	690.2	14.9	4.3	1,223.0	-	73.2	156.4	2,335.1	-
14a	Water Transfers - Regional	-	1.0	-	-	-	-	-	-	-	-	1.0	-
b	Water Transfers - Imported	-	-	-	-	-	-	-	-	-	-	0.0	-
15a	Releases for Delta Outflow - CVP											0.0	
b	Releases for Delta Outflow - SWP											0.0	
c	Instream Flow	1,445.3	23.1	20.3	3.5	3,699.6	1,528.9	-	84.6	98.4	-	6,903.7	1,569.5
16	Environmental Water Account Releases	-	-	-	-	0.0	-	-	-	-	-	0.0	-
17a	Conveyance Return Flows to Developed Supply - Urban	-	-	-	-	-	-	-	-	-	-	0.0	-
b	Conveyance Return Flows to Developed Supply - Ag	-	-	-	-	60.1	-	-	-	-	-	60.1	23.0
c	Conveyance Return Flows to Developed Supply - Managed Wetlands	-	-	-	-	-	-	-	-	-	-	0.0	-
18a	Conveyance Seepage - Urban	-	-	-	-	-	-	-	-	-	-	0.0	-
b	Conveyance Seepage - Ag	5.3	-	-	-	206.0	6.6	-	5.8	-	-	223.7	3.6
c	Conveyance Seepage - Managed Wetlands	-	-	-	-	23.8	-	-	-	-	-	23.8	-
19a	Recycled Water - Agriculture	11.7	10.5	-	-	-	1.3	-	5.0	-	-	28.4	1.2
b	Recycled Water - Urban	0.3	5.7	17.5	211.6	-	0.7	-	-	28.0	16.0	279.8	-
c	Recycled Water - Groundwater	-	6.2	-	2.1	-	-	-	-	-	-	8.3	-
20a	Return Flow to Developed Supply - Ag	12.5	-	-	-	985.4	1,259.0	-	-	-	-	2,256.9	56.0
b	Return Flow to Developed Supply - Wetlands	-	-	-	-	4.0	132.6	3.1	-	-	-	139.7	-
c	Return Flow to Developed Supply - Urban	4.0	-	23.4	319.8	11.9	-	-	1.5	63.5	145.4	569.5	-
21a	Deep Percolation of Applied Water - Ag	52.6	-	212.1	92.8	179.1	157.7	1,347.8	19.8	42.8	78.5	2,183.2	6.0
b	Deep Percolation of Applied Water - Wetlands	1.2	-	-	-	8.3	174.3	27.3	0.3	-	-	211.4	-
c	Deep Percolation of Applied Water - Urban	14.6	43.4	53.0	-	79.8	204.1	348.1	12.7	-	-	755.7	19.2
22a	Reuse of Return Flows within Region - Ag	67.5	-	-	-	367.7	-	-	27.9	-	119.9	583.0	7.7
b	Reuse of Return Flows within Region - Wetlands, Instream, W&S	143.5	-	165.4	287.7	1,001.4	5,190.0	3,205.0	313.5	18.6	-	10,325.1	4,917.6
24a	Return Flow for Delta Outflow - Ag	-	-	-	-	-	-	-	-	-	-	0.0	-
b	Return Flow for Delta Outflow - Wetlands, Instream, W&S	-	-	-	-	5,897.3	0.1	-	-	-	-	5,897.4	3,403.8
c	Return Flow for Delta Outflow - Urban Wastewater	-	-	-	-	-	-	-	-	-	-	0.0	-
25	Direct Diversions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
26	Surface Water in Storage - Beg of Yr	2,236.3	491.3	589.1	1,380.6	9,727.2	6,943.0	865.3	853.2	329.4	580.8	23,996.2	11,595.4
27	Groundwater Extractions - Banked	-	-	-	-	-	-	-	-	-	-	0.0	-
28	Groundwater Extractions - Adjudicated	-	-	-	711.4	-	-	-	-	61.8	-	773.2	-
29	Groundwater Extractions - Unadjudicated	221.1	72.1	905.1	592.8	1,855.9	1,750.2	2,535.7	88.5	247.5	254.3	8,523.2	60.5
Withdrawals:	**In Thousand Acre-feet**												
23	Groundwater Subsurface Outflow	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	-
30	Surface Water Storage - End of Yr	2,938.8	567.6	990.1	1,752.5	12,479.2	9,122.9	1,303.6	1,000.0	401.5	566.3	31,122.5	14,015.1
31	Groundwater Recharge-Contract Banking	-	-	-	-	-	-	99.8	-	-	-14.7	85.1	-
32	Groundwater Recharge-Adjudicated Basins	-	-	-	-	-	-	-	-	-	-	0.0	-
33	Groundwater Recharge-Unadjudicated Basins	-	-	-	-	-	-	-	-	-	-	0.0	-
34a	Evaporation and Evapotranspiration from Native Vegetation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
b	Evaporation and Evapotranspiration from Unirrigated Ag	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
35a	Evaporation from Lakes	38.9	10.1	10.0	18.5	320.7	77.3	39.3	294.6	162.4	1,555.5	2,527.3	92.4
b	Evaporation from Reservoirs	167.5	104.4	74.2	149.1	700.7	419.9	232.9	175.5	45.1	120.0	2,189.3	630.2
36	Ag Effective Precipitation on Irrigated Lands	215.7	-	167.8	39.0	1,358.0	N/A	-	55.8	-	-	1,836.3	75.2
37	Agricultural Use	633.1	101.8	822.7	699.9	5,845.1	5,160.6	7,839.2	375.1	326.8	3,570.5	25,374.7	261.3
38	Wetlands Use	391.4	6.2	0.1	31.2	398.3	411.4	63.1	18.7	-	31.6	1,352.0	-
39a	Urban Residential Use - Single Family - Interior	42.4	132.2	55.5	976.8	115.2	88.0	101.6	3.5	66.9	84.4	1,666.5	29.4
b	Urban Residential Use - Single Family - Exterior	19.8	308.2	69.9	659.4	231.0	160.6	155.1	5.1	59.2	121.7	1,790.0	60.4
c	Urban Residential Use - Multi-family - Interior	10.9	183.0	33.1	591.5	72.3	92.7	106.9	4.4	11.0	20.3	1,126.1	10.2
d	Urban Residential Use - Multi-family - Exterior	2.7	45.7	17.3	104.8	18.1	43.8	64.3	1.1	7.2	14.3	319.1	3.3
40	Urban Commercial Use	20.8	212.4	48.4	694.8	112.7	38.7	37.5	9.0	26.0	48.0	1,248.3	10.8
41	Urban Industrial Use	26.8	53.1	26.0	182.8	77.4	34.1	53.4	12.5	8.2	3.3	477.6	10.3
42	Urban Large Landscape	4.8	80.6	12.8	166.6	91.5	33.7	16.0	2.3	7.7	161.2	576.4	11.3
43	Urban Energy Production	-	-	14.3	39.8	-	-	-	-	6.3	76.7	137.1	-
44	Instream Flow	1,445.3	23.1	20.3	3.5	3,699.6	1,528.9	-	84.6	98.4	-	6,903.7	1,569.5
45	Required Delta Outflow	-	-	-	-	9,505.0	-	-	-	-	-	9,505.0	-
46	Wild & Scenic Rivers Use	33,290.1	-	318.6	284.2	3,124.4	3,661.1	3,205.0	404.1	-	-	44,287.6	6,751.9
47a	Evapotranspiration of Applied Water - Ag	449.8	78.3	580.8	500.8	3,693.1	3,409.7	5,181.4	241.1	216.8	2,466.1	16,817.9	176.9
b	Evapotranspiration of Applied Water - Managed Wetlands	155.7	3.1	0.1	31.2	127.5	104.4	32.8	13.2	-	31.6	499.6	-
c	Evapotranspiration of Applied Water - Urban	22.1	303.0	91.6	930.6	315.2	187.6	187.0	8.8	74.1	297.2	2,417.2	59.3
48	Evaporation and Evapotranspiration from Urban Wastewater	3.5	-	-	-	0.2	-	-	-	-	-	2.7	-
49	Return Flows Evaporation and Evapotranspiration - Ag	29.6	-	3.2	11.6	122.2	74.4	-	19.5	6.7	90.7	357.9	6.0
50	Urban Waste Water Produced	87.9	562.8	43.0	1,798.9	252.2	76.4	-	24.6	28.5	59.8	2,954.1	43.4
51a	Conveyance Evaporation and Evapotranspiration - Urban	-	7.1	8.6	343.9	4.9	15.1	10.6	-	9.0	37.1	436.3	10.0
b	Conveyance Evaporation and Evapotranspiration - Ag	6.9	0.5	11.8	-	40.6	211.9	442.5	2.3	-	64.0	780.5	10.7
c	Conveyance Evaporation and Evapotranspiration - Managed Wetland	0.4	-	-	-	11.7	-	-	0.2	-	-	12.3	-
d	Conveyance Loss to Mexico	-	-	-	-	-	-	-	-	-	N/A	0.0	-
52a	Return Flows to Salt Sink - Ag	23.1	24.0	32.4	104.2	643.9	37.2	477.3	68.3	60.9	1,089.8	2,561.1	12.4
b	Return Flows to Salt Sink - Urban	85.0	675.9	98.0	1,972.5	313.5	109.2	-	14.9	56.8	183.2	3,509.0	67.2
c	Return Flows to Salt Sink - Wetlands	1.7	3.1	-	-	179.2	-	-	-	-	-	184.0	-
53	Remaining Natural Runoff - Flows to Salt Sink	34,715.0	23.1	173.5	-	33,981.9	-	-	180.2	79.8	-	69,153.5	0.0
54a	Outflow to Nevada	-	-	-	-	-	-	-	1,390.6	-	-	1,390.6	-
b	Outflow to Oregon	109.3	-	-	-	-	-	-	-	-	-	109.3	-
c	Outflow to Mexico	-	-	-	-	-	-	-	-	-	-	0.0	-
55	Regional Imports	2.0	308.7	107.9	2,575.3	668.5	5,191.8	3,824.3	0.3	543.2	5,142.6	18,364.6	0.0
56	Regional Exports	680.5	0.0	65.8	0.0	2,266.2	4,013.3	2,391.7	11.9	871.2	1,081.3	11,381.9	4,373.6
59	Groundwater Net Change in Storage	-46.9	-70.4	-639.1	-1,211.4	739.9	-443.1	432.2	10.0	-260.1	-57.6	-1,546.5	-12.5
60	Surface Water Net Change in Storage	702.5	76.3	401.0	371.9	2,752.0	2,179.9	438.3	146.8	72.1	-14.5	7,126.3	2,419.7
61	Surface Water Total Available Storage	3,779.9	746.1	1,226.8	2,112.7	16,145.6	11,372.3	2,046.1	1,181.2	458.9	620.4	39,690.0	18,185.0

N/A - Data Not Available "-" - Data Not Applicable "0" - Null value

Table 1-2b
California Statewide Water Portfolios for Water Year 2000

The flow diagram is regional data only.

Inputs:	In Thousand Acre-feet	NC 2000	SF 2000	CC 2000	SC 2000	SR 2000	SJ 2000	TL 2000	NL 2000	SL 2000	CR 2000	CA 2000	MC 2000
1	Colorado River Deliveries	-	-	-	1,296.0	-	-	-	-	-	4,052.8	5,348.8	-
2	Total Desalination	-	-	-	-	-	-	-	-	-	-	0.0	-
3	Water from Refineries	-	-	-	-	-	-	-	-	-	-	0.0	-
4a	Inflow From Oregon	1,396.7	-	-	-	-	-	-	-	-	-	1,396.7	-
b	Inflow From Mexico	-	-	-	-	-	-	-	-	-	165.6	165.6	-
5	Precipitation	50,755.1	6,643.7	12,596.4	7,522.1	57,105.9	23,208.5	12,692.9	6,708.3	7,476.1	3,033.9	187,742.9	38,412.
6a	Runoff - Natural	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
b	Runoff - Incidental	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
7	Total Groundwater Natural Recharge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
8	Groundwater Subsurface Inflow	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
9	Local Deliveries	592.4	241.9	50.4	211.4	12,189.0	3,455.4	2,275.6	469.5	58.1	6.3	19,550.0	1,516.4
10	Local Imports	3.1	502.0	-	273.1	10.9	-	-	0.3	-	-	789.4	10.9
11a	Central Valley Project :: Base Deliveries	-	-	27.3	-	1,930.8	167.4	-	-	-	-	2,125.5	6.1
b	Central Valley Project :: Project Deliveries	-	118.1	23.9	-	554.2	1,667.0	2,272.3	-	-	-	4,635.5	20.2
12	Other Federal Deliveries	408.7	34.5	61.4	0.6	228.3	63.2	-	-	-	-	796.7	1.6
13	State Water Project Deliveries	-	155.6	30.9	1,298.9	14.9	4.7	1,955.5	-	108.0	100.6	3,669.1	-
14a	Water Transfers - Regional	-	1.0	-	-	-	-	-	-	-	-	1.0	-
b	Water Transfers - Imported	-	-	-	-	-	-	-	-	-	-	0.0	-
15a	Releases for Delta Outflow - CVP											0.0	
b	Releases for Delta Outflow - SWP											0.0	
c	Instream Flow	1,444.5	21.5	21.4	3.5	3,759.8	2,098.5	-	85.0	88.8	-	7,523.0	1,563.0
16	Environmental Water Account Releases	-	-	-	-	264.0	-	-	-	-	-	264.0	-
17a	Conveyance Return Flows to Developed Supply - Urban	-	-	-	-	-	-	-	-	-	-	0.0	-
b	Conveyance Return Flows to Developed Supply - Ag	-	-	-	-	44.7	-	-	-	-	-	44.7	-
c	Conveyance Return Flows to Developed Supply - Managed Wetlands	-	-	-	-	-	-	-	-	-	-	0.0	-
18a	Conveyance Seepage - Urban	-	-	-	-	-	-	-	-	-	-	0.0	-
b	Conveyance Seepage - Ag	6.4	-	-	-	270.0	6.6	-	3.6	-	-	286.6	4.7
c	Conveyance Seepage - Managed Wetlands	-	-	-	-	24.5	-	-	-	-	-	24.5	-
19a	Recycled Water - Agriculture	11.7	10.3	-	-	-	1.2	-	5.0	-	-	28.2	1.2
b	Recycled Water - Urban	0.3	5.9	18.5	182.8	-	6.7	-	-	29.0	17.2	254.4	-
c	Recycled Water - Groundwater	-	6.2	-	31.1	-	-	-	-	-	-	43.3	-
20a	Return Flow to Developed Supply - Ag	6.9	-	-	-	1,215.1	677.1	-	-	-	-	1,899.1	-
b	Return Flow to Developed Supply - Wetlands	-	-	-	-	4.2	126.7	2.5	-	-	-	133.4	-
c	Return Flow to Developed Supply - Urban	3.6	-	26.4	386.7	11.8	-	-	2.0	81.5	161.0	673.0	-
21a	Deep Percolation of Applied Water - Ag	61.2	-	254.2	114.8	299.8	844.2	1,928.4	28.9	44.2	84.6	3,660.3	6.1
b	Deep Percolation of Applied Water - Wetlands	1.3	-	-	-	11.6	166.5	29.7	0.4	-	-	209.5	-
c	Deep Percolation of Applied Water - Urban	19.4	44.0	62.8	-	88.7	219.7	414.5	13.3	-	-	862.2	17.6
22a	Reuse of Return Flows within Region - Ag	86.1	-	-	-	569.1	-	-	36.2	-	132.3	823.7	12.0
b	Reuse of Return Flows within Region - Wetlands, Instream, W&S	115.5	-	29.9	37.8	1,019.9	4,192.3	1,331.1	181.9	21.4	-	6,929.8	3,330.3
24a	Return Flow for Delta Outflow - Ag	-	-	-	-	-	-	-	-	-	-	0.0	-
b	Return Flow for Delta Outflow - Wetlands, Instream, W&S	-	-	-	-	4,835.4	-	-	-	-	-	4,835.4	2,331.4
c	Return Flow for Delta Outflow - Urban Wastewater	-	-	-	-	-	-	-	-	-	-	0.0	-
25	Direct Diversions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
26	Surface Water in Storage - Beg of Yr	2,740.7	530.5	770.2	1,515.5	11,603.3	7,378.6	708.7	903.5	326.2	585.4	27,062.6	12,504.
27	Groundwater Extractions - Banked	-	-	-	-	-	-	-	-	-	-	0.0	-
28	Groundwater Extractions - Adjudicated	-	-	-	824.7	-	-	-	-	61.8	-	886.5	-
29	Groundwater Extractions - Unadjudicated	335.4	142.8	1,085.3	696.2	2,803.1	2,655.6	5,024.7	161.6	277.6	304.4	13,486.7	61.2
Withdrawals:	**In Thousand Acre-feet**												
23	Groundwater Subsurface Outflow	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	-
30	Surface Water Storage - End of Yr	2,495.0	505.7	778.5	1,643.3	10,502.6	7,446.0	652.2	837.6	317.8	566.9	25,745.6	11,702.
31	Groundwater Recharge-Contract Banking	-	-	-	-	-	-	167.4	-	-	-59.2	108.2	-
32	Groundwater Recharge-Adjudicated Basins	-	-	-	-	-	-	-	-	-	-	0.0	-
33	Groundwater Recharge-Unadjudicated Basins	-	-	-	-	-	-	-	-	-	-	0.0	-
34a	Evaporation and Evapotranspiration from Native Vegetation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
b	Evaporation and Evapotranspiration from Unirrigated Ag	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
35a	Evaporation from Lakes	45.2	10.1	11.6	18.5	331.5	89.7	38.5	313.6	163.7	1,552.5	2,574.9	107.2
b	Evaporation from Reservoirs	181.3	103.4	75.9	164.2	798.5	477.1	233.8	213.7	45.1	121.5	2,414.5	711.0
36	Ag Effective Precipitation on Irrigated Lands	129.0	-	-	-	1,058.3	N/A	-	32.1	-	-	1,219.4	51.9
37	Agricultural Use	785.3	122.7	994.8	911.6	7,930.8	6,542.1	10,013.0	462.4	360.9	3,732.4	31,856.0	329.7
38	Wetlands Use	424.4	6.2	0.1	38.1	429.5	441.6	73.8	25.9	-	30.2	1,469.8	-
39a	Urban Residential Use - Single Family - Interior	30.7	131.0	70.0	1,249.0	127.4	103.1	121.1	4.2	98.1	108.5	2,043.1	28.9
b	Urban Residential Use - Single Family - Exterior	40.0	305.9	77.8	760.8	267.7	191.2	185.1	5.1	67.8	119.8	2,021.2	60.1
c	Urban Residential Use - Multi-family - Interior	13.8	184.9	36.9	541.3	88.0	89.9	127.7	4.8	23.7	10.2	1,121.2	10.1
d	Urban Residential Use - Multi-family - Exterior	3.1	46.2	20.4	142.5	22.2	44.9	76.4	1.2	11.6	9.5	378.0	3.6
40	Urban Commercial Use	16.0	223.2	54.0	918.6	140.3	38.0	44.6	9.7	16.8	96.0	1,557.3	10.5
41	Urban Industrial Use	27.6	55.9	22.5	210.2	84.4	36.1	63.8	12.5	4.8	4.7	522.5	10.3
42	Urban Large Landscape	12.8	91.2	12.6	241.0	111.6	37.2	19.2	2.6	8.0	157.5	693.7	11.0
43	Urban Energy Production	-	-	14.3	39.8	0.3	-	-	-	6.2	76.7	137.4	-
44	Instream Flow	1,444.5	21.5	21.4	3.5	3,759.8	2,098.5	-	85.0	88.8	-	7,523.0	1,563.0
45	Required Delta Outflow	-	-	-	-	7,231.6	-	-	-	-	-	7,231.6	-
46	Wild & Scenic Rivers Use	17,321.1	-	103.2	34.3	2,024.7	2,093.8	1,331.1	233.3	-	-	23,141.5	4,098.7
47a	Evapotranspiration of Applied Water - Ag	557.8	94.7	695.7	646.2	5,008.5	4,405.8	7,162.0	361.3	247.6	2,617.9	21,737.5	248.6
b	Evapotranspiration of Applied Water - Managed Wetlands	194.4	3.1	0.1	38.1	169.7	148.1	41.5	19.8	-	30.2	645.0	-
c	Evapotranspiration of Applied Water - Urban	44.2	307.9	102.2	1,144.3	371.1	211.2	223.8	8.7	87.4	292.1	2,792.4	54.5
48	Evaporation and Evapotranspiration from Urban Wastewater	0.2	-	-	-	0.1	-	-	-	-	-	0.3	-
49	Return Flows Evaporation and Evapotranspiration - Ag	33.5	-	4.3	15.1	173.4	11.6	-	20.2	7.3	89.7	355.1	7.8
50	Urban Waste Water Produced	75.6	598.4	50.2	2,162.1	301.0	82.9	-	26.5	35.3	66.5	3,398.5	50.7
51a	Conveyance Evaporation and Evapotranspiration - Urban	-	6.9	9.6	374.7	4.3	16.0	12.8	-	10.5	24.3	459.1	9.6
b	Conveyance Evaporation and Evapotranspiration - Ag	7.1	0.6	14.5	-	61.5	252.6	482.0	1.7	-	64.0	884.0	23.9
c	Conveyance Evaporation and Evapotranspiration - Managed Wetland	0.4	-	-	-	16.3	-	-	0.8	-	-	17.0	-
d	Conveyance Loss to Mexico	-	-	-	-	-	-	-	-	-	N/A	0.0	-
52a	Return Flows to Salt Sink - Ag	41.9	28.6	45.2	135.5	848.7	282.5	587.1	76.9	65.5	1,082.4	3,194.3	77.6
b	Return Flows to Salt Sink - Urban	76.5	693.3	108.1	2,352.1	371.7	119.3	-	16.1	72.0	196.1	4,005.2	71.6
c	Return Flows to Salt Sink - Wetlands	1.7	3.1	-	-	164.0	-	-	0.6	-	-	169.4	-
53	Remaining Natural Runoff - Flows to Salt Sink	18,763.0	21.5	94.7	-	10,924.2	-	-	141.2	67.4	-	30,012.0	0.0
54a	Outflow to Nevada	-	-	-	-	-	-	-	753.9	-	-	753.9	-
b	Outflow to Oregon	113.7	-	-	-	-	-	-	-	-	-	113.7	-
c	Outflow to Mexico	-	-	-	-	-	-	-	-	-	-	0.0	-
55	Regional Imports	2.0	309.2	143.7	3,141.1	668.5	5,287.6	5,579.4	0.3	836.1	5,449.4	21,417.3	0.0
56	Regional Exports	668.5	0.0	88.9	0.0	5,114.3	5,848.3	1,614.4	11.8	1,000.5	1,296.0	15,642.7	3,744.1
59	Groundwater Net Change in Storage	-28.4	114.5	767.3	-1,406.1	-150.8	-97.2	-1,837.5	-41.3	-282.3	-188.5	-4,684.9	-15.1
60	Surface Water Net Change in Storage	-245.7	-24.8	8.3	127.8	-1,100.7	67.4	-56.5	-65.9	-8.4	-18.5	-1,317.0	-802.0
61	Surface Water Total Available Storage	3,779.9	746.1	1,226.8	3,058.8	16,145.6	11,477.1	2,046.1	1,181.2	458.9	620.4	40,740.9	18,185.

N/A - Data Not Available "-" - Data Not Applicable "0" - Null value

Table 1-2c
California Statewide Water Portfolios for Water Year 2001

he flow diagram is regional data only.

		NC	SF	CC	SC	SR	SJ	TL	NL	SL	CR	CA	MC
iputs:	**In Thousand Acre-feet**	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001
1	Colorado River Deliveries	-	-	-	1,202.0	-	-	-	-	-	3,946.9	5,148.9	-
2	Total Desalination	-	-	-	-	-	-	-	-	-	-	0.0	-
3	Water from Refineries	-	-	-	-	-	-	-	-	-	-	0.0	-
4a	Inflow From Oregon	1,226.2	-	-	-	-	-	-	-	-	-	1,226.2	-
b	Inflow From Mexico	-	-	-	-	-	-	-	-	-	154.7	154.7	-
5	Precipitation	31,254.4	4,908.0	11,847.9	9,327.0	35,894.8	16,120.2	11,563.6	3,755.9	9,740.9	4,769.9	139,182.6	23,444.5
6a	Runoff - Natural	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
b	Runoff - Incidental	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
7	Total Groundwater Natural Recharge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
8	Groundwater Subsurface Inflow	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
9	Local Deliveries	351.1	231.7	45.4	217.1	8,823.5	3,381.8	1,713.4	311.8	46.8	4.0	15,126.6	1,062.9
10	Local Imports	16.4	529.9	-	252.5	8.5	-	-	3.3	-	-	810.6	8.5
11a	Central Valley Project :: Base Deliveries	-	-	35.5	-	2,021.3	168.2	-	-	-	-	2,225.0	7.0
b	Central Valley Project :: Project Deliveries	-	114.7	19.6	-	495.7	1,545.2	1,790.5	-	-	-	3,965.7	11.4
12	Other Federal Deliveries	238.2	37.7	54.6	0.7	239.5	96.4	-	-	-	-	667.1	1.6
13	State Water Project Deliveries	-	121.3	27.7	1,056.0	19.6	3.5	849.3	-	79.1	43.9	2,200.4	-
14a	Water Transfers - Regional	-	0.2	-	-	-	-	-	-	-	-	0.2	-
b	Water Transfers - Imported	-	-	-	-	-	-	-	-	-	-	0.0	-
15a	Releases for Delta Outflow - CVP											0.0	
b	Releases for Delta Outflow - SWP											0.0	
c	Instream Flow	1,473.5	20.0	10.8	3.5	3,747.5	1,424.4	-	84.5	78.4	-	6,842.6	1,450.6
16	Environmental Water Account Releases	-	-	-	-	242.0	-	-	-	-	-	242.0	-
17a	Conveyance Return Flows to Developed Supply - Urban	-	-	-	-	-	-	-	-	-	-	0.0	-
b	Conveyance Return Flows to Developed Supply - Ag	-	-	-	-	45.3	-	-	-	-	-	45.3	-
c	Conveyance Return Flows to Developed Supply - Managed Wetlands	-	-	-	-	-	-	-	-	-	-	0.0	-
18a	Conveyance Seepage - Urban	-	-	-	-	-	-	-	-	-	-	0.0	-
b	Conveyance Seepage - Ag	4.9	-	-	-	268.2	6.7	-	2.1	-	-	281.9	3.7
c	Conveyance Seepage - Managed Wetlands	-	-	-	-	13.4	-	-	-	-	-	13.4	-
19a	Recycled Water - Agriculture	11.7	10.3	-	-	-	1.2	-	5.0	-	-	28.2	1.2
b	Recycled Water - Urban	0.4	5.9	18.5	188.7	-	9.7	-	-	29.4	17.8	261.4	-
c	Recycled Water - Groundwater	-	6.2	-	36.3	-	-	-	-	-	-	42.5	-
20a	Return Flow to Developed Supply - Ag	6.9	-	-	-	957.6	628.2	-	-	-	-	1,592.7	-
b	Return Flow to Developed Supply - Wetlands	-	-	-	-	4.4	134.2	2.0	-	-	-	140.6	-
c	Return Flow to Developed Supply - Urban	3.5	-	32.6	415.4	13.3	-	-	1.8	79.0	211.9	757.5	-
21a	Deep Percolation of Applied Water - Ag	72.2	-	288.8	92.6	320.3	910.1	2,075.5	29.3	38.4	76.6	3,903.8	4.5
b	Deep Percolation of Applied Water - Wetlands	0.7	-	-	-	12.3	142.3	34.6	0.3	-	-	190.2	-
c	Deep Percolation of Applied Water - Urban	18.6	46.1	64.4	-	90.8	226.0	431.6	12.6	-	-	890.1	18.3
22a	Reuse of Return Flows within Region - Ag	23.5	-	-	-	446.2	-	-	30.8	-	135.3	635.8	6.9
b	Reuse of Return Flows within Region - Wetlands, Instream, W&S	30.3	-	36.2	111.7	619.3	2,515.4	964.0	126.9	20.6	-	4,424.4	1,783.0
24a	Return Flow for Delta Outflow - Ag	-	-	-	-	219.7	-	-	-	-	-	219.7	-
b	Return Flow for Delta Outflow - Wetlands, Instream, W&S	-	-	-	-	4,098.4	-	-	-	-	-	4,098.4	1,636.4
c	Return Flow for Delta Outflow - Urban Wastewater	-	-	-	-	-	-	-	-	-	-	0.0	-
25	Direct Diversions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
26	Surface Water in Storage - Beg of Yr	2,495.0	505.7	778.5	1,643.3	10,502.6	7,446.0	652.2	837.6	317.8	566.9	25,745.6	11,702.6
27	Groundwater Extractions - Banked	-	-	-	-	-	-	-	-	-	-	0.0	-
28	Groundwater Extractions - Adjudicated	-	-	-	829.2	-	-	-	-	61.8	-	891.0	-
29	Groundwater Extractions - Unadjudicated	462.7	217.6	1,222.9	627.9	2,922.7	2,954.9	6,974.5	234.9	293.7	307.9	16,219.7	73.9
/ithdrawals:	**In Thousand Acre-feet**												
23	Groundwater Subsurface Outflow	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	-
30	Surface Water Storage - End of Yr	2,003.9	449.4	764.5	1,975.6	8,090.8	6,010.8	511.4	407.8	316.5	568.3	21,099.0	8,982.1
31	Groundwater Recharge-Contract Banking	-	-	-	-	-	-	-3.9	-	-	-8.9	-12.8	-
32	Groundwater Recharge-Adjudicated Basins	-	-	-	-	-	-	-	-	-	-	0.0	-
33	Groundwater Recharge-Unadjudicated Basins	-	-	-	-	-	-	-	-	-	-	0.0	-
34a	Evaporation and Evapotranspiration from Native Vegetation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
b	Evaporation and Evapotranspiration from Unirrigated Ag	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	N/A
35a	Evaporation from Lakes	42.4	9.8	10.9	17.9	326.1	82.0	34.2	317.6	163.4	1,552.4	2,556.7	98.5
b	Evaporation from Reservoirs	162.7	98.8	71.5	160.8	728.9	449.3	190.6	267.6	42.1	120.6	2,292.9	646.4
36	Ag Effective Precipitation on Irrigated Lands	122.7	-	-	-	1,056.4	N/A	-	8.5	-	-	1,187.6	70.8
37	Agricultural Use	633.4	135.6	1,146.4	758.4	7,781.6	6,695.3	9,983.1	428.4	343.9	3,663.6	31,569.7	305.9
38	Wetlands Use	254.3	6.2	0.1	37.2	445.5	411.7	76.3	20.5	-	29.6	1,281.4	-
39a	Urban Residential Use - Single Family - Interior	30.3	137.2	69.9	1,197.1	132.9	108.4	126.3	3.7	94.9	147.6	2,048.3	30.0
b	Urban Residential Use - Single Family - Exterior	42.1	320.2	72.8	677.8	280.0	203.9	192.7	5.9	73.8	90.4	1,959.6	62.6
c	Urban Residential Use - Multi-family - Interior	15.0	194.6	32.7	503.2	90.4	93.8	132.8	3.0	12.7	9.7	1,089.9	10.5
d	Urban Residential Use - Multi-family - Exterior	3.7	48.6	17.0	163.3	22.7	46.1	79.7	1.3	7.2	10.1	399.7	3.8
40	Urban Commercial Use	17.3	234.6	46.3	909.8	136.4	40.2	46.3	9.3	18.1	151.3	1,609.6	11.2
41	Urban Industrial Use	27.7	58.6	20.9	209.4	84.4	36.8	66.4	12.5	5.5	4.9	527.1	10.4
42	Urban Large Landscape	13.5	95.5	13.6	176.8	119.7	39.5	19.8	2.6	9.0	105.7	595.7	11.6
43	Urban Energy Production	0.1	-	14.3	39.8	0.1	-	-	-	6.3	76.7	137.3	-
44	Instream Flow	1,473.5	20.0	10.8	3.5	3,747.5	1,424.4	-	84.5	78.4	-	6,842.6	1,450.6
45	Required Delta Outflow	-	-	-	-	4,486.2	-	-	-	-	-	4,486.2	-
46	Wild & Scenic Rivers Use	6,547.6	-	73.9	108.2	885.0	1,091.0	984.0	152.5	-	-	9,822.2	1,968.8
47a	Evapotranspiration of Applied Water - Ag	460.6	104.2	789.1	540.7	4,913.7	4,627.6	7,320.4	281.1	239.1	2,594.8	21,871.3	205.9
b	Evapotranspiration of Applied Water - Managed Wetlands	155.3	3.1	0.1	37.2	162.9	135.1	38.4	16.9	-	29.6	578.6	-
c	Evapotranspiration of Applied Water - Urban	48.3	322.6	94.4	1,017.9	383.6	219.9	232.4	9.4	90.1	206.2	2,624.8	56.7
48	Evaporation and Evapotranspiration from Urban Wastewater	0.2	-	-	-	0.2	-	-	-	-	-	0.4	-
49	Return Flows Evaporation and Evapotranspiration - Ag	26.4	-	4.9	12.5	173.9	14.3	-	12.5	6.7	85.6	336.8	6.0
50	Urban Waste Water Produced	77.7	628.5	46.3	2,036.3	311.6	92.9	-	26.5	33.3	68.2	3,321.3	52.7
51a	Conveyance Evaporation and Evapotranspiration - Urban	-	6.2	9.4	359.8	4.3	15.7	13.3	-	10.1	18.9	437.7	9.6
b	Conveyance Evaporation and Evapotranspiration - Ag	4.2	9.7	16.5	-	59.9	248.1	382.1	1.0	-	64.0	776.5	22.7
c	Conveyance Evaporation and Evapotranspiration - Managed Wetland	0.1	-	-	-	15.5	-	-	0.2	-	-	15.8	-
d	Conveyance Loss to Mexico	-	-	-	-	-	-	-	-	-	N/A	0.0	-
52a	Return Flows to Salt Sink - Ag	43.8	32.1	50.0	112.7	939.6	380.6	537.5	74.7	59.7	1,045.9	3,276.6	104.2
b	Return Flows to Salt Sink - Urban	79.1	726.8	105.5	2,237.0	380.2	132.2	-	16.5	66.7	198.9	3,942.9	74.2
c	Return Flows to Salt Sink - Wetlands	1.5	3.1	-	-	169.4	-	0.5	-	-	-	174.5	-
53	Remaining Natural Runoff - Flows to Salt Sink	8,021.1	20.0	48.5	-	2,457.9	-	-	113.2	57.8	-	10,718.5	0.0
54a	Outflow to Nevada	-	-	-	-	-	-	-	551.9	-	-	551.9	-
b	Outflow to Oregon	66.4	-	-	-	-	-	-	-	-	-	66.4	-
c	Outflow to Mexico	-	-	-	-	-	-	-	-	-	-	0.0	-
55	Regional Imports	2.0	273.9	180.0	2,763.0	668.5	3,890.3	3,784.6	3.3	533.9	5,192.8	17,292.3	0.0
56	Regional Exports	668.5	0.0	132.7	0.0	3,761.4	4,073.1	1,295.0	9.2	706.6	1,202.0	11,848.5	2,605.6
59	Groundwater Net Change in Storage	-156.8	-150.7	-868.7	-1,364.5	-1,146.6	-1,332.3	-4,176.8	-177.5	-303.5	-200.7	-9,878.0	-78.2
60	Surface Water Net Change in Storage	-491.1	-56.3	-14.0	332.3	-2,411.8	-1,435.2	-140.8	-429.8	-1.3	1.4	-4,646.6	-2,720.5
61	Surface Water Total Available Storage	3,779.9	746.1	1,226.8	3,058.8	16,145.6	11,477.1	2,046.1	1,181.2	458.9	620.4	40,740.9	18,185.0

N/A - Data Not Available "-" - Data Not Applicable "0" - Null value

Table 1-3
California Water Use and Distribution of Dedicated Supplied

	1998			2000			2001		
	Applied Water Use	Net Water Use	Depletion	Applied Water Use	Net Water Use	Depletion	Applied Water Use	Net Water Use	Depletion
WATER USE									
Urban									
Large Landscape	0.6			0.7			0.6		
Commercial	1.2			1.6			1.6		
Industrial	0.5			0.5			0.5		
Energy Production	0.1			0.1			0.1		
Residential - Interior	2.8			3.2			3.1		
Residential - Exterior	2.1			2.4			2.4		
Evapotranspiration of Applied Water		2.4	2.4		2.8	2.8		2.6	2.6
Irrecoverable Losses		0.6	0.6		0.7	0.7		0.7	0.7
Outflow		3.1	3.1		3.5	3.5		3.4	3.4
Conveyance Loss - Applied Water	0.2			0.2			0.2		
Conveyance Loss - Evaporation		0.2	0.2		0.2	0.2		0.2	0.2
Conveyance Loss - Irrecoverable Losses		0.0	0.0		0.0	0.0		0.0	0.0
Conveyance Loss - Outflow		0.0	0.0		0.0	0.0		0.0	0.0
GW Recharge Applied Water	0.2			0.1			0.1		
GW Recharge Evap + Evapotranspiration		0.0	0.0		0.0	0.0		0.0	0.0
Total Urban Use	**7.7**	**6.4**	**6.4**	**8.8**	**7.3**	**7.3**	**8.6**	**7.0**	**7.0**
Agriculture									
On-Farm Applied Water	24.3			31.2			31.3		
Evapotranspiration of Applied Water		16.8	16.8		21.7	21.7		21.9	21.9
Irrecoverable Losses		0.8	0.8		0.9	0.9		0.9	0.9
Outflow		3.9	1.6		4.0	2.1		4.0	2.5
Conveyance Loss - Applied Water	2.2			2.4			2.2		
Conveyance Loss - Evaporation		0.8	0.8		0.9	0.9		0.8	0.8
Conveyance Loss - Irrecoverable Losses		0.2	0.2		0.2	0.2		0.2	0.2
Conveyance Loss - Outflow		0.4	0.3		0.4	0.3		0.4	0.3
GW Recharge Applied Water	1.1			0.7			0.2		
GW Recharge Evap + Evapotranspiration		0.0	0.0		0.0	0.0		0.0	0.0
Total Agricultural Use	**27.5**	**22.8**	**20.5**	**34.3**	**28.1**	**26.2**	**33.8**	**28.1**	**26.5**
Environmental									
Instream									
Applied Water	6.9			7.5			6.8		
Outflow		5.3	5.3		5.4	5.4		5.4	5.4
Wild & Scenic									
Applied Water	44.3			23.1			9.8		
Outflow		35.7	35.7		18.5	18.5		6.9	6.9
Required Delta Outflow									
Applied Water	9.5			7.2			4.5		
Outflow		9.5	9.5		7.2	7.2		4.5	4.5
Managed Wetlands									
Habitat Applied Water	1.4			1.5			1.3		
Evapotranspiration of Applied Water		0.5	0.5		0.6	0.6		0.6	0.6
Irrecoverable Losses		0.0	0.0		0.0	0.0		0.0	0.0
Outflow		0.5	0.3		0.4	0.3		0.4	0.3
Conveyance Loss - Applied Water	0.0			0.0			0.0		
Conveyance Loss - Evaporation		0.0	0.0		0.0	0.0		0.0	0.0
Conveyance Loss - Irrecoverable Losses		0.0	0.0		0.0	0.0		0.0	0.0
Conveyance Loss - Outflow		0.0	0.0		0.0	0.0		0.0	0.0
Total Managed Wetlands Use	1.4	1.0	0.8	1.5	1.1	1.0	1.3	1.0	0.9
Total Environmental Use	**62.1**	**51.5**	**51.4**	**39.4**	**32.2**	**32.1**	**22.5**	**17.8**	**17.7**
TOTAL USE AND LOSSES	**97.4**	**80.7**	**78.3**	**82.5**	**67.6**	**65.5**	**64.8**	**52.9**	**51.2**
DEDICATED WATER SUPPLIES									
Surface Water									
Local Deliveries	22.8	22.8	21.3	19.6	19.6	18.4	15.1	15.1	14.2
Local Imported Deliveries	0.9	0.9	0.9	0.8	0.8	0.7	0.8	0.8	0.8
Colorado River Deliveries	5.0	5.0	4.7	5.3	5.3	5.0	5.1	5.1	4.8
CVP Base and Project Deliveries	5.4	5.4	5.0	6.8	6.8	6.4	6.2	6.2	5.8
Other Federal Deliveries	0.7	0.7	0.6	0.8	0.8	0.8	0.7	0.7	0.6
SWP Deliveries	2.3	2.3	2.2	3.7	3.7	3.5	2.2	2.2	2.1
Required Environmental Instream Flow	39.0	39.0	39.0	22.2	22.2	22.2	11.2	11.2	11.2
Groundwater									
Net Withdrawal	4.4	4.4	4.4	8.2	8.2	8.2	11.3	11.3	11.3
Artificial Recharge	1.1			0.7			0.2		
Deep Percolation	3.8			5.5			5.6		
Reuse/Recycle									
Reuse Surface Water	11.7			8.7			6.1		
Recycled Water	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
TOTAL SUPPLIES	**97.4**	**80.7**	**78.3**	**82.5**	**67.6**	**65.5**	**64.9**	**52.9**	**51.2**
Balance = Use - Supplies	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*

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Figure 1-2
California Statewide 1998 Flow Diagram
In Thousand Acre-Feet (TAF)

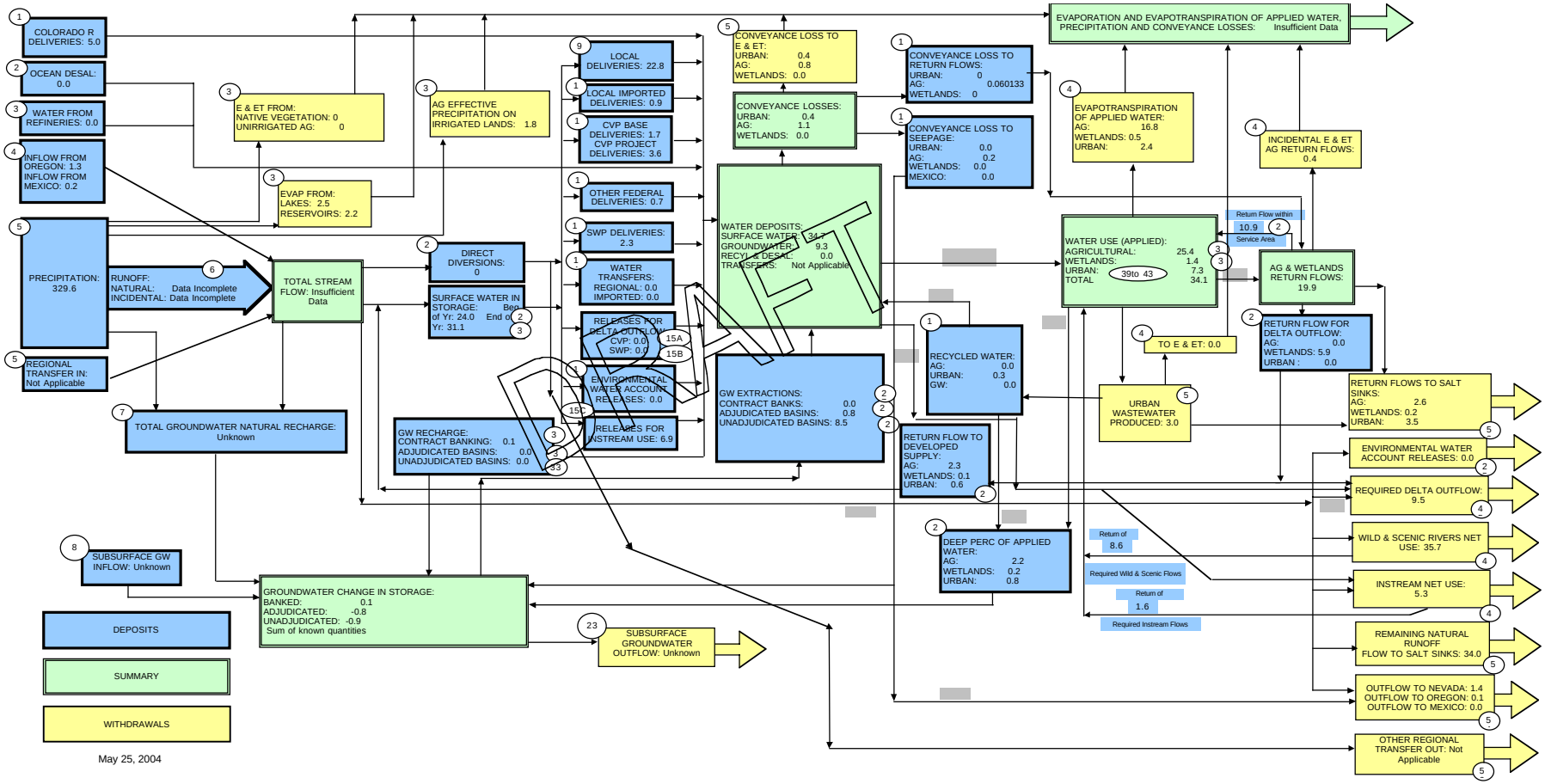

Figure 1-3
California Statewide 2000 Flow Diagram
In Thousand Acre-Feet (TAF)

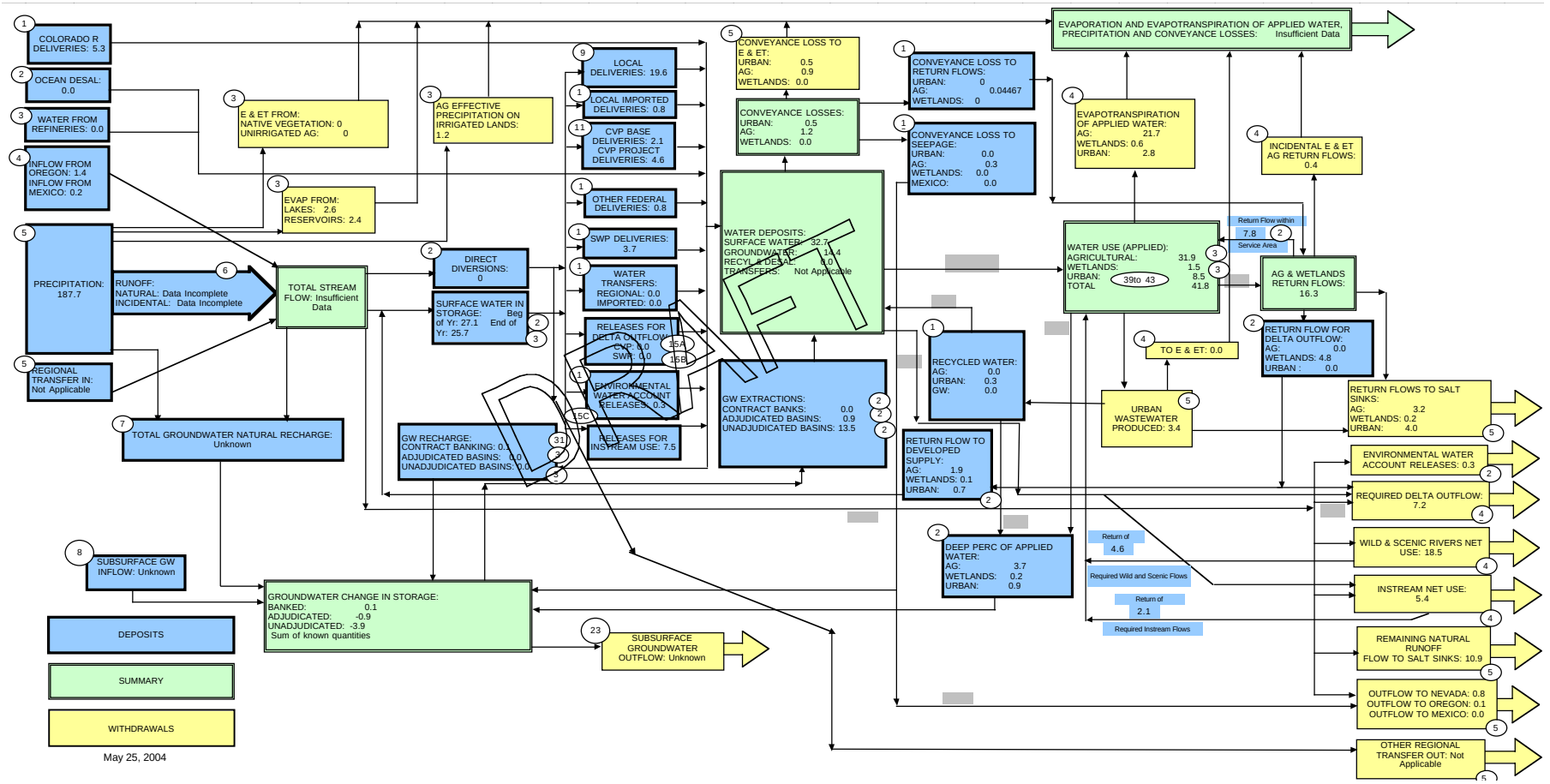

Figure 1-4
California Statewide 2001 Flow Diagram
In Thousand Acre-Feet (TAF)